

WHAT IS CLAIMED IS:

1. A method of constructing an electrical contact on an electronic component, comprising providing a protruding electrically conducting core on the component at a site where an interconnection is to be made, and placing the core in contact with molten solder, without using a mask, to form on the core a solder bump which adheres to the core.

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2. A method according to claim 1, comprising forming the electrically conducting core from a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

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3. A method according to claim 1, comprising forming the electrically conducting core by attaching a metal stud to the component at the site where the interconnection is to be made.

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4. A method according to claim 3, comprising attaching the metal stud to a contact pad of the component by wire bonding.

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5. A method according to claim 4, comprising forming the electrically conducting core from a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

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6. A method according to claim 3, comprising coining the metal stud after it has been formed on the component.

7. A method according to claim 6, comprising forming the electrically conducting core from a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

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8. A method according to claim 6, comprising forming the metal stud from a length of wire which is bonded to a contact pad of the component and which is coated with a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

9. A method according to claim 3, comprising coining the metal stud after it has been formed on the component.

10. A method according to claim 9, comprising forming the electrically conducting core from a material selected from the group consisting of gold, copper, silver, 5 platinum, palladium and nickel and their alloys.

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11. A method according to claim 9, comprising forming the metal stud from a length of wire which is bonded to a contact pad of the component and which is coated with a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

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12. A method according to claim 3, comprising forming the electrically conducting core from a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

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13. A method according to claim 3, comprising forming the metal stud from a length of wire which is bonded to a contact pad of the component and which is coated with a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

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14. A method according to any preceding claim, comprising forming the solder bump by dipping the electrically conducting core into a bath of molten solder.

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15. A method according to any one of claims 1 to 13, comprising forming the solder bump by wave soldering.

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16. A method of interconnecting two electronic components, comprising forming an electrical contact by the method of any preceding claim on a contact pad of one of the components and forming a bond between the contact thus formed and a contact pad of the other component.

17. An electronic component having a contact which is formed by a protruding electrically conducting core and a solder bump formed on and adhering to the core.

18. An electronic component according to claim 17, in which the core of the contact is a metal stud.

5 19. An electronic component according to claim 18, in which the material of the metal stud is selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

10 20. An electronic component according to claim 18, in which the metal stud is formed by a length of wire bonded to a contact pad of the component.

15 21. An electronic component according to claim 20, in which the material of the metal stud is selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

20 22. An electronic component according to claim 20, in which the wire is coated with a material selected from the group consisting of gold, copper, silver, platinum, palladium and nickel and their alloys.

25 23. An electronic component according to any one of claims 17 to 22, which component is a semiconductor chip.

24. An electronic component according to any one of claims 17 to 22, which component is a substrate.

25 25. A electronic components package comprising a semiconductor chip and a mounting substrate, in which one of the chip and the substrate has electrical contacts formed in accordance with any one of claims 17 to 22, and the other of the chip and substrate has contact pads bonded to the contacts by the solder bumps of the contacts.